



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-7099; Directorate Identifier 2016-NE-15-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; International Aero Engines AG Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain International Aero Engines AG (IAE) V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5, and V2531-E5 turbofan engines. This proposed AD was prompted by nine in-flight shutdowns that resulted from premature failure of the No. 3 bearing. This proposed AD would require initial and repetitive inspections of the master magnetic chip detector (MMCD) and, if metallic debris is found, further actions depending on the type of metallic debris. This proposed AD would also require removal of the No. 3 bearing from service at the next engine shop visit. We are proposing this AD to prevent failure of the No. 3 bearing, failure of one or more engines, loss of thrust control, and loss of the airplane.

**DATES:** We must receive comments on this proposed AD by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: 860-565-0140; email: [help24@pw.utc.com](mailto:help24@pw.utc.com); Internet: <https://fleetcare.pw.utc.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7099; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Brian Kierstead, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: [brian.kierstead@faa.gov](mailto:brian.kierstead@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-7099; Directorate Identifier 2016-NE-15-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We learned from the manufacturer that nine in-flight shutdowns resulted from premature failure of the No. 3 bearing. This condition, if not corrected, could result in failure of the No. 3 bearing, failure of one or more engines, loss of thrust control, and loss of the airplane.

### **Related Service Information under 1 CFR part 51**

We reviewed IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0671, dated March 22, 2016. The NMSB describes procedures for inspecting the MMCD and further actions if metallic debris is found. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Proposed AD Requirements**

This proposed AD would require initial and repetitive inspections of the MMCD and, if metallic debris is found, further actions depending on the type of metallic debris. This proposed AD would also require removal of the No. 3 bearing from service at the next engine shop visit and its replacement with a part eligible for installation.

### **Costs of Compliance**

We estimate that this proposed AD affects 11 engines installed on airplanes of U.S. registry. We estimate that it would take about 1 hour to perform the inspection. The average labor rate is \$85 per hour. We estimate the cost to replace a No. 3 bearing to be \$54,510. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$600,545.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**International Aero Engines AG:** Docket No. FAA-2016-7099; Directorate Identifier 2016-NE-15-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to International Aero Engines (IAE) V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5, and V2531-E5 turbofan engines with No. 3 bearing serial numbers listed in Appendix 1 of IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0671, dated March 22, 2016.

#### **(d) Unsafe Condition**

This AD was prompted by several in-flight shutdowns that resulted from premature failure of the No. 3 bearing. We are issuing this AD to prevent failure of the No. 3 bearing, failure of one or more engines, loss of thrust control, and loss of the airplane.

#### **(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) Prior to accumulating 125 flight hours after the effective date of this AD, inspect the master magnetic chip detector (MMCD) for metallic debris. If no metallic

debris is found during the MMCD inspection, repeat the inspection within every 125 flight hours.

(2) If metallic debris is found during the MMCD inspection, evaluate the debris using paragraph 2.B. of the Accomplishment Instructions in IAE NMSB V2500-ENG-72-0671, dated March 22, 2016. Perform additional inspections or remove the engine from service in accordance with the Accomplishment Instructions in IAE NMSB V2500-ENG-72-0671.

(3) Remove the No. 3 bearing from service at the next engine shop visit and replace it with a bearing part/serial number combination not listed in Appendix 1 of IAE NMSB V2500-ENG-72-0671, dated March 22, 2016.

**(f) Mandatory Terminating Action**

Removal of the No. 3 bearing from service at the next engine shop visit and replacement with a bearing not listed in Appendix 1 of IAE NMSB V2500-ENG-72-0671, dated March 22, 2016, is terminating action to this AD.

**(g) Definition**

For the purpose of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

**(h) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

**(i) Related Information**

(1) For more information about this AD, contact Brian Kierstead, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: brian.kierstead@faa.gov.

(2) IAE NMSB V2500-ENG-72-0671, dated March 22, 2016, can be obtained from IAE using the contact information in paragraph (i)(3) of this proposed AD.

(3) For service information identified in this proposed AD, contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06118; phone: 860-565-0140; email: help24@pw.utc.com; Internet: <http://fleetcare.pw.utc.com>.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on July 13, 2016.

Colleen M. D'Alessandro,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.  
[FR Doc. 2016-17159 Filed: 7/20/2016 8:45 am; Publication Date: 7/21/2016]